



The
Tiger

YULE TIDE
NUMBER



THE TIGER

THE CALIFORNIA
SCHOOL OF
MECHANICAL ARTS

VOL. X

No. II

DECEMBER, 1912

SAN FRANCISCO, CAL.



Digitized by the Internet Archive
in 2013

<http://archive.org/details/tiger1021912cali>



To
Miss Alice F. English
with due appreciation
is this volume dedicated

CONTENTS



	Page
Dedication	3
Literary :—	
The Quitter (E. C. Allsopp, '15)	5
Wrecked (H. Schultheis, '15)	7
Querido (Edith Holuber, '14)	8
The Deserter (L. J. Sneath, '15)	11
Technical :—	
The Transportation Problem (H. C. Collins, '13)	13
Candy Making (Irene Saywell, '13)	14
Editorials	16
Exchanges	18
School Notes	20
Shop Notes	28
Athletics	32
Joshes	37



The Quitter

The scout snapped his fingers contemptuously. "No, Reilly," he said. "I don't want Collins. I think he is yellow, and there isn't room for a quitter in the big leagues. Take Larry Craig, who was with the Green Sox, for example. That fellow had more 'stuff' on the ball than three-quarters of the pitchers in the big leagues, yet the minute they began to hit him he'd quit. That is the reason he is in the Ohio State League now. It is the same way with Collins. Yesterday he went along all right for three innings, but in the fourth, when they began to hit him, he quit, and if you hadn't sent Brown in, you wouldn't have as much chance for the pennant as you have now."

Bill Reilly, the genial manager of the Sharks, smiled. "Well, Kelly," he said, "as you know, you have the pick of any man on our team. That was the agreement the Bears made when they let us have Stewart. As we have already sold Frank Brown to the Green Sox, and you don't want Collins, to my mind, Allen, our centerfielder, is the next best man on the team. But, personally, I think that Collins is a better pitcher than Brown. Collins did not quit yesterday; he hurt his arm. I sent him to a doctor this morning to find out what was the matter with it."

"But now, to change the subject, what do you think of our pennant race this season? There are only three more games left to play, and here we are, tied for first place with the Colts."

"Collins may have hurt his arm," said Kelly, "but it looked more to me as though he—"

Kelly stopped as the door opened and Collins walked in, wearing a dejected look on his face. He nodded to Kelly and then turned to Reilly. "Doctor Thomas says I strained one of the tendons in my arm yesterday and that if I try to curve a ball inside of three months I will never be able to pitch again."

"What!" Reilly sprang to his feet and began pacing the floor. "What can I do?" he said, more to himself than to the others. "Here I have been figuring on Brown to pitch this afternoon, Stewart to-morrow morning and Collins to-morrow afternoon. Outside of them I haven't a dependable pitcher on the team. I will have to send Brown in on Sunday afternoon, and he is overworked as it is."

* * * * *

Twenty thousand "fans" shifted nervously in their seats as the Sharks took the field for the last half of the ninth. Plainly, the overworked Brown was weakening. Only a fast double play and some poor base running on the part of the Colts had saved him the inning previous. The Sharks had

a one-run lead, secured in the first inning when Allen, the stocky little centerfielder, drove the ball over the right field fence for a home run. Since then not one of the Sharks had reached first base off Miller, the Colts' pitcher.

Reilly, pacing nervously up and down in front of the bench, sank his fingernails into his palms as Stevens, the first Colt up in the ninth, cracked the ball to left for a single. The pennant depended on Brown's lasting through the inning without being scored on. Brown had won his game the day before, but that morning the Colts had hammered Stewart for an 8 to 3 victory, so the pennant depended on the outcome of this game.

Murray, the Colts' catcher, hit a sure two-bagger to center, but Allen, who had started back with the crack of the bat, brought the crowd to their feet with a wonderful one-handed catch against the fence. The next two Colts singled off the now fast-weakening Brown.

The Colts' manager ran out and spoke to the umpire, who turned towards the scorer's box and announced: "Hills is batting for Miller."

The crowd groaned dismally. There was hardly a "fan" there who did not know that "Home run" Hills was one of the best batters in the league, and seldom failed to "deliver" in a pinch. Reilly swore softly. "We're gone now," he muttered, half aloud; "I haven't a pitcher to send in."

"I'll go in."

Reilly turned; Collins was standing behind him. "But your arm!" he cried.

Collins squared his jaw. "I will sacrifice my arm for my team, if it is necessary."

The crowd roared its delight as their old favorite walked to the mound. Collins threw the customary practice balls and then Hills, swinging two bats to make one seem lighter, advanced to the plate. Collins wound up coolly and shot the ball over. It was a slow ball and Hills, caught off his guard, swung too soon.

"Strike one!" bawled the umpire.

Collins next tried a fast ball. There was a vicious crack as Hills' bat met the horsehide, and the ball sailed over the right field fence. But it was about a yard to the right of the foul line.

The crisis had come. Collins knew that Hills was "on" to his straight ball, and to try to fool him would be too risky. Just then he noticed the Colts manager remove his cap and scratch his ear. That could only be the signal for one thing—the hit and run! Collins shot the signal to his catcher, who in turn signaled for a waste ball. But Collins shook his head. The catcher then signaled for other balls, and finally the signal came for his old standby, the out-drop. Collins gritted his teeth as he wound up, and with all his force he hurled the ball for the plate!

A terrible pain shot up his arm. He saw Hills swing wildly at the ball and he heard it "plunk" into the catcher's mitt. He saw the catcher brush off his mask and tag the flying Stevens as he made a long slide for the plate. Then, all grew black before his eyes and he sank to the ground.

* * * * *

Collins opened his eyes and looked dreamily about him. He was in a hospital. A nurse was standing at the foot of his bed and the doctor was leaning over him. His right arm throbbed dully. He grinned. "Well, Doc, I guess I am through ain't I?"

The doctor nodded. "It won't affect your arm very much in any other way, but you will never be able to pitch again."

A nurse entered. "There are two gentlemen down stairs to see Mr. Collins," she said.

The doctor and the nurses passed out as Kelly and Reilly entered. "Well, Kid," said Reilly, "how about it?"

"The doctor says I am through, so I guess it's 'back to the farm' for me."

Kelly laid his hand on Collins' shoulder. "I once said that you were yellow, Collins," he said, "but now I take it back. A fellow can't do a much gamier thing than sacrifice his salary arm for his team. As for your going back 'to the farm,' I have a proposition to make to you. The head of the Louisville team asked me to keep my eyes open for a bench manager for next season, and as it takes a good, heady fellow, with lots of nerve for that job, I don't know anyone I can recommend any higher than you. Do you want the job?"

E. C. ALLSOPP.

Wrecked

At 2:30, Monday afternoon, the steamship "Panama" sailed from Mazatlan, on the Gulf of California, for San Diego. I was signed on as first engineer and Jim Black, a friend of mine, was second. Everything was going well and at eight bells on the last watch, I went on duty in the engineroom. As I went down the main deck to the engineroom, I noticed that the night was pitchy black. Neither moon nor stars were visible on account of the heavy fog. The engines were running easily and we were plowing through the Pacific at full speed ahead.

I relieved Black and took charge of the engines. After examining some repairs made on a boiler tube, I sat down by the indicator. A lever operated by the officer on the bridge controls the needle of this instrument in the engineroom so that it will indicate any change in speed desired. I proceeded to make out a report of repairs done to a cylinder head. Just as I had finished my report, the signal bell clanged. Glancing at the indicator, I saw the needle fly to full speed astern. In an instant I had reversed the engines and was about to telephone to the bridge when I was startled by a heavy thud and the rending of the iron plates on the bow. I rang the chief engineer's bell and shouted some orders to the oilers and watertenders who stood at their posts. I stopped the engines and turned the steam into the pumps. As I passed the fireroom door it burst open and the firemen and stokers surged forward. Drawing my revolver, I thrust it into the face of the foremost of the gang and yelled:

"Get back to your posts, you greasers!"

They stood muttering. At that moment Chief Engineer MacFerson came thundering down the ladders followed by the third assistant. The chief took charge of the engineroom, I took charge of the pumps, while Jim and the third stood at the fireroom door with drawn revolvers. We felt the ship lurch and settle and heard the rush of water forward—but every man was kept at his post.

The telephone from the bridge rang and the chief sprang to it in time to hear the captain shout, "Desert ship!" He called out the order. It took the oilers, watertenders, firemen and stokers about twenty seconds to get up on deck. Jim and the third followed close behind. I turned the steam into the pumps and left them running. The chief and I then climbed up the steep iron ladder to the main deck for the last time. We reached the boat deck in time to see the last boat launched in charge of the third officer.

T H E T I G E R.

Jim and I began to clear away a life raft. By this time the bow was under water and the main deck amidships was awash. Feeling the stern rise, we made a wild dive into the sea. The captain was the last man to leave his ship. As the ship went down the boilers exploded with a terrific roar. I came to the surface just in time to see the "Panama" disappear. The suction pulled me under but I soon came to the surface.

I struggled in the water for fully twenty minutes. Then my hand struck the side of a life raft. I climbed aboard and set up a cry in the hope of locating some of the life boats. Finally, I fell exhausted on my tossing raft. The warmth of the sun the next morning roused in me a spark of life. Far off on the horizon I could see two floating objects. I pulled off my shirt and waved it. An answering signal revived my hope. I began navigating toward them at once. The objects proved to be no other than Jim and MacFerson on a craft similar to mine. We lashed the rafts together and divided ourselves into watches. Jim and I turned in and Mac took the deck.

That night during my watch, I thought I saw a masthead light. I called Jim and the chief and we made a couple of torches out of some canvas and tar. Soon we could see the green starboard light. We lighted a torch with some of the matches from the water-proof cases which a sailor always carries, and to our great joy we saw the lookout's lantern answer. Presently the red port light came into view and we knew that the vessel was headed toward us.

A few minutes later we were up the rope ladder and on the deck of the British ship "South Hampton," bound from Peru to San Diego. When we arrived at the company's office in Los Angeles, we found that the "Panama" had collided with a derelict which had been very low in the water and carried no lights. This had been learned from one of the other survivors who had been on deck at the time of the disaster.

I soon received another berth with the company and will shortly be placed in charge of the engineroom of the new steamer "Santa Maria," which is nearly completed and is the finest of her kind in the Pacific.

H. SCHULTHEIS.

"Querido"

In the southern part of our state, near San Diego, lies a road which stretches from the United States boundary line into Mexico, wends its way across a barren desert land and finally terminates at the little village of Tia Juana. Tia Juana has no industries and is supported by American tourists who traverse the road daily in automobiles and other vehicles. Companies have been formed to handle the traffic and even private individuals find putting their machines to this kind of service a lucrative occupation.

One of the best known drivers on the road was Frank West. He was not with any company, but had a machine of his own. For several weeks he had been very busy, as uprisings occurring near Tia Juana, had aroused more than usual interest in the little town. The fighting in the north had ceased, but there was still action farther south, and the inciters of the revolution were still at work. They were forever on the alert for a chance to smuggle rifles and supplies into Mexico. The idea of smuggling rifles in automobiles proved a successful scheme.

All unknown to him, the garage in which Frank West kept his machine became the center for this unlawful practise.

"Where will be a good place to load our machine?" The man spoke in low, muffled tones.

His companion, upon making a hasty survey of the place, replied, "We can do it right here. You drive the wagon with the rifles up to the side entrance of this place at about 10 o'clock to-night. I'll have the rear door open and my car will be the one next to the wall. You know the big blue touring car. Well, lift up the seat and put the rifles underneath."

This conversation, which took place in the garage one summer evening, would have been interesting to the Federal officials.

A little later, Frank West came in from his regular run with his big, blue touring car. His customary place had been taken so he asked the watchman where he should put his machine.

"Oh, put her in anywhere. See if she'll go in between that last car and the wall."

"Just fits," said Frank, as he backed his car into place beside the other blue one.

"They look enough alike to be twins, don't they, sonny?"

"Sure thing," replied "sonny." "Well, anyway, I know mine. It's nearest the wall."

It was with soaring spirits that Frank drove his car from the garage next morning. He was looking forward to a profitable day generally, and more especially to a ride with a certain Maria de Casbro who had secured the car the previous evening. Señorita de Casbro lived in Mexico, but frequently visited friends in San Diego, and upon these occasions the trip was always made in Frank's automobile. She was a Spanish type of beauty, with a pair of such captivating dark brown eyes that Frank was hesitant about keeping his own on the road. They traversed the road safely, however, and as she spoke little English and Frank no Spanish at all, their conversation was limited chiefly to shy smiles and stolen glances. It seemed too soon when they reached Tía Juana, and Frank was reluctant to bid farewell to Maria.

West was waiting for his party to return from their visit to the curio shop, when he noticed that one of the tires of his machine was soft. He jumped into the car. One of the Mexican secret police had stopped close by and was watching his movements. Intent upon his own purpose, Frank lifted the seat to get his pump,—and saw something which caused him to stop short in surprise. The Mexican was all suspicion in an instant.

"I demand to see what is under that seat," he said in Spanish.

Frank blankly shook his head. The officer leaped into the car and drew out a long, rectangular box, which was found to contain twelve new army rifles.

"And so," sneeringly grinned the officer, "you are caught at last. I place you under arrest."

The words were unintelligible to Frank but he guessed their meaning and realized that the evidence was against him. He was very much puzzled, but was aware that protest would avail him nothing. He submitted to being searched, and was locked up in a room back of the town office, pending further investigation.

Frank remained locked in the little room all afternoon and evening. He walked restlessly back and forth, trying to reason out his dilemma. How was he to account for the presence of the rifles in his machine? No explanation would be credited and he could expect no assistance from the United States officials on a charge of smuggling. His only hope lay in the possibility of escape from his cell. Once over the line, he would be free

from the whole Mexican service. The matter of getting out of his cell, however, was more easily thought of than accomplished. He examined the door, walls, and windows and found them all absolutely impassable. Everything shouted, "Hopeless!—hopeless!" Poor Frank worked himself into a fever of impatience and rage at the injustice of his imprisonment and his own helplessness.

The night dragged on. A stray moonbeam peered through a crack in the wall, and by its light his watch showed twelve—then one. He was about to look again but stopped a moment, listening. He had heard a noise; something creaking just above his head. The noise grew louder. Suddenly, the ceiling seemed to be caving in. Frank looked up. A trap door had opened, and a ladder was being lowered into the room.

An anxious whisper of a sweet, familiar voice warned him to be still. "How—why?" he gasped.

"Ven, pronto," the voice commanded. Frank climbed cautiously up the ladder and followed his rescuer across a dark attic, descended another ladder and found himself at last on firm ground.

"Ai, Mio! I see them arrest you and know they put you in that cuarto; but—I wait, mucho tiempo—how you call—long time. The Federals—they do not know that leetle door."

"You are very kind,—very good," Frank stammered, extending his hand.

"Oh, no," she answered, putting both of her hands behind her back. "I like you—escape only for that you are a—poleet-ic-al prisoner," she added with a pretty toss of her head.

They hurried to the place where the auto had stood and found it undisturbed. Frank cranked the machine as noiselessly as possible and jumped into it, but did not appear to be in any hurry to start. At this, Maria became quite excited.

"Oh! go, go!" she begged. "What is that the Americanos say? Ai! Beat it. Pronto, querido. Adios!"

"Querido," Frank mused as he left the town of Tia Juana behind, "querido,—now what do you suppose that means? Of course, it is not worth remembering. I'm foolish to think of it. By Jove! I owe a great deal to that little Señorita." He then proceeded to take out his note book and write the unfamiliar word down.

Only half a mile more, and the boundary line would be crossed. West put on full speed and soon was on American soil.

The next morning Frank met a friend of his, Bert Webster, and told him of his exciting experience.

"By the way, Bert," he asked, as he finished his story, "you speak Spanish,—what does 'querido' mean?"

"Querido?" Bert answered, smiling, "why that means 'beloved' or 'sweetheart.' But, anyway," he continued, "I guess you will steer clear of Tia Juana for a good while, won't you?"

"Oh, I don't know," said Frank, as he repeated the interpretation to himself, "I was thinking of risking it back there to-day."

EDITH HOLUBER.

The Deserter

It had been a long, hot day, and the men of Troop A were returning, tired and dusty, to the barracks at Talowan. The commandant had, that morning, received word that several of Aguinaldo's regiments had been seen near Jolong, a little village about five miles away. He had been ordered to start after them immediately, but the search had been unsuccessful. They had not found a sign of them. The traveling had been hard about Jolong and the men did not know the country. The general had concluded that the Filipinos were well out of the way by this time and had ordered their return.

"By Golly, that sure was some hot day," said Private O'Shea, at the table that night.

"It was that," answered his messmate at the right, Tom Hanshew. "Hope to-morrow's better. I hear we're to start after 'em again. Well, I hope we have better luck. I'd like to see some real fighting, instead of skirmishing around all day."

Tom Hanshew was new to the service. He had enlisted at the beginning of the Spanish-American war and was sent to Manila. From here his regiment had been ordered to Talowan, where it was now stationed. Tom had not seen any active service as yet, and he was anxious, as most recruits are, to see a real battle.

"Big Bill" O'Shea, his companion, was just the opposite. He had seen thirty-six years of service, having fought in the Civil War. He had never been promoted; he always said that he wanted to be "just one of the boys." The two had met on the transport and had become fast friends. The older man acted as a sort of father to Tom, showing him all the ins and outs of military life.

* * * * *

The little band of soldiers were passing through a narrow defile in the mountains when suddenly, without warning, a huge rock came hurtling down the mountain-side and barely missed those in front of the line. This seemed to be a signal, for instantly, from all points in front of them, there came the crash of hundreds of guns. The soldiers were so taken by surprise that for a moment they were electrified. This moment was sufficient, for when they broke for shelter, four lay in the dust on the trail. The Filipinos kept up a steady fire, but the Americans had found shelter behind the many rocks that guarded the entrance to the pass, and were no longer targets for the dark-skinned natives.

The officers immediately held a council of war. It was decided that they should remain and fight, although the Filipinos had many more men and held the advantage over them in position. Upon orders, the troop started firing at the rocks behind which the enemy were hidden. "Big Bill" seemed to take it easily, reloading his gun and firing whenever a chance opened. He rarely missed his mark. His many years of service had not been spent for nothing. Tom Hanshew, however, was much excited. When the first volley was fired he stood still in the trail and would probably have been killed, had not Bill dragged him behind a nearby rock.

"This is awful!" said Hanshew to the man next to him, amidst the rain of bullets. There was no answer. Hanshew turned and looked. The man was dead! Hanshew shuddered. He looked at the place where "Big Bill" had been hiding a minute before. He was gone! Hanshew was left alone.

O, why had he ever thought of going to war! Suddenly the thought that he would never return to see the folks at home came upon him. A great desire to leave this wretched country and return to God's land overcame him. The chance was open to him, why should he not grasp it? There was no one to see him go. He would probably be thought dead.

So, with slinking steps, he silently crept away towards home, freedom, and those he loved. No one had seen him go, he was sure of that. Once out of danger he hurried along, unmindful of the branches that tore his clothes. He had not gone far, however, when a figure came crashing through the underbrush and stopped in front of him. It was "Big Bill!" Hanshew made ready to spring, for the thought of liberty was sweet, but he did not have the courage.

Bill spoke. "Tom," he said, and his voice quavered. "Tom, I thought you had courage enough to stand it out. I saw you desert. But come, you're a man, come back to the ranks. Nobody has missed us, and we can get back without a body knowing the difference."

But Hanshew hung his head. "No, Bill, I can't go. I wasn't made for this kind of a life. I'll go back to America and start over. It's no use; I'd only get scared again and disgrace myself for good. No, Bill, I've got to go back."

"But Tom, haven't you got any backbone in you? Just think of the disgrace at home if you return! To have deserted from the United States Army because you were afraid! You, a coward! Tom, doesn't honor mean anything to you?"

There was no response.

"Tom, I thought better of you, honest, I did."

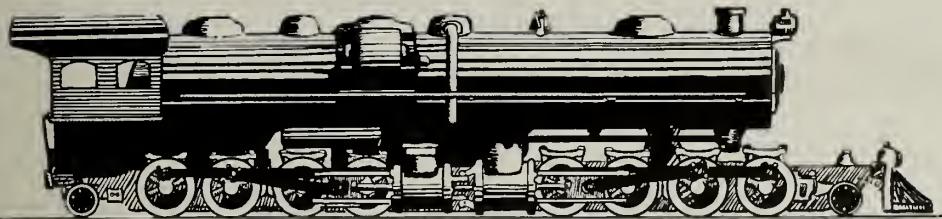
Suddenly there came a bugle call and "Old Glory" was seen floating over the trees.

"Hurrah!" shouted Bill. "Tom, look at that flag; don't it kinda thrill you? Don't Uncle Sam and the United States mean anything to you? Come on, Tom, they're winning, we'll go back!"

Tom Hanshew slowly raised his eyes to the flag, took off his hat and said, "Bill—I'll go!"

L. J. SNEATH.





WATERFORD 19

TECHNICAL

The Transportation Problem and the Bridge

There is evidence of stone structures to carry roadways over rivers having been used since Horatius Coele's famous defense of the structure over the Tiber; but with the introduction of iron and steel into construction of bridges early in the nineteenth century, rapid strides were made in their development. Each new bridge was gazed upon in wonder because of its greater length, span, and capacity. The completion of the bridge between the cities of New York and Brooklyn in 1883, however, was a step in the development not to be surpassed for many years. This structure was considered a marvel then and still is to-day. It is a marvel to-day because its enormous single span has only been exceeded in length by two bridges since its completion and in one case by only five feet.

The structure, now known as Brooklyn Bridge, was planned in 1870, almost thirty years before the consolidation of the two cities, as the only solution of the transportation problem over the river which separated them. The ferry-boats had long been inadequate to the travel, and tunnels under the river, as they are to-day, were never thought of as anything but fancies.

In 1896, hardly five years after the total completion of the first bridge, the situation was found to be in the same state as before it was built; so a second bridge known as the Williamsburg Bridge was planned, to be completed in 1903, just ten months after work on the third—Manhattan Bridge—was commenced.

In this manner the addition of a bridge every three or four years at a cost of over fifteen million dollars apiece, might have been necessary had not the construction of tunnels under the river solved the problem in a different way. The fourth of the great bridges connecting New York and its parts was the Queensboro Bridge, completed in 1909, and situated four miles from the other three.

Of these four structures, the first three are suspension bridges, while the last is of the cantilever type. In the suspension bridge, the substructure, or piers and towers of the bridge, upholds the superstructure or roadway by huge cables hung over the towers. The first modern suspension bridge of any size was built over the Niagara River below the falls in 1852. It has recently been replaced, however, by a modern steel arch bridge. The greatest suspension bridges in the world at the present time stand side by side over the East River in New York. They are the Williamsburg, Brooklyn and Manhattan Bridges, which have been mentioned, and according to

the size of the single span, rank in the order named. The cantilever bridge is a newer type in which the superstructure is composed of two trusses in the form of levers with the piers acting as fulcrums. The shorter arms of the two levers are securely anchored on the shores while the longer arms extend over the river and are connected together. The advantage of this type is that the weight of the span of the bridge and its load is partly balanced by its approaches. Bridges of the cantilever type are the Firth of Forth Bridge, in Scotland, and the Queensboro Bridge in New York. The first cantilever bridge of any size was built over the Niagara River below the old suspension bridge just thirty years later.

The growth of the bridge in New York has been due to the natural expansion of the city and the resulting demand for transportation to and from the outlying parts. The highest point in the development of bridges in that city has been reached, as the tunnels under the river have started the growth in another direction.

H. C. COLLINS.

Candy Making

Candy is composed of a large amount of sugar and a small amount of glucose to give it the proper consistency. This composition is boiled in water till the syrup is thick and almost clear. The syrup is then poured out on huge marble slabs, where it is allowed to cool. It is stirred with paddles and soon becomes hard, white and almost crystalline. This process is sometimes carried on in copper kettles, which cook the ingredients, and at the same time beat them white and hard by means of a rotating dasher.

The candy in this state is ready to be cast into various sizes and shapes. It is cast in cornstarch molds. The starch is placed in narrow, shallow boxes, and smoothed off at the top. The boxes are run under a press, the lower part of which is covered by projections of the size required. When the press goes down a little hammer taps the top of the projection, automatically, and the cornstarch is punctured with rows of smooth, clear-cut holes. When the molds are complete, they are filled from the tank with cream candy. Marshmallows are cast in the same way. When the candy in the molds is dry and hard, the boxes are taken to a machine called the "starch-buck." Here the starch and the candy are dumped into a hopper under a series of sieves. The starch falls through the meshes, and the candy is carried on through a series of brushes to take off the remaining starch.

Chocolate creams are dipped by means of a small wire spoon, after which they are placed on a little piece of oilcloth and set in a frame to dry.

For the manufacture of hearts and lozenges, the sugar is mixed cold in large tubes and the lozenges are pressed out in molds. Mottoes are printed on the hearts by means of a rubber stamp.

Caramels are made of sugar and pure cream carefully boiled together until they are of proper consistency, and then poured on marble slabs to cool. They are then cut and wrapped.

Hard candy is made of sugar boiled over an open fire and then colored in various shades. The batches are then mixed and rolled out by hand until they are the size of an ordinary stick of candy, after which they are cut up into equal lengths.

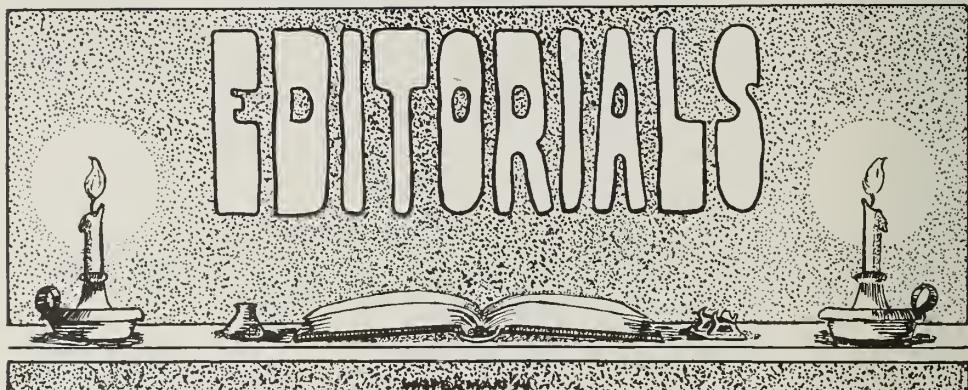
Rock candy and many of the sugared nut candies are made by the process of crystallization. A tin box having strings running from top to bottom is used. This is filled with sugar and set away in a warm place. The crystals of sugar form and harden, thus making rock candy. In this manner crystals are allowed to form on fruits, almonds and other nuts.

For cocoanut candy, the white meat is taken from the nuts and placed in a kettle, where it is boiled and stirred by means of a rotating dasher. Sugar is added and when the mass is sufficiently cooked it is placed on a marble slab and rolled down evenly with a long piece of pipe. Cocoanut is molded and colored into various forms and sliced into strips with a cutting machine.

On the whole, mechanical devices render the process of candy making very simple. While candy is generally eaten to gratify our taste for sweets, it is also recommended for its nourishing qualities. The United States Government provides an abundance of candy for the army and each soldier is apportioned a certain amount in his daily rations. In Switzerland, where the difficulty of carrying provisions is so great, the Alpine climbers find chocolate an excellent substitute for meat.

IRENE SAYWELL.





THE TIGER

The Tiger is published every quarter by the Students of the California School of Mechanical Arts (founded by James Lick), at Sixteenth and Utah Streets, San Francisco, California.

Subscriptions—\$1.00 per annum. Single copies, 25 cents.

Advertising rates upon application to Business Manager.

Entered as second-class matter August 22, 1907, at the postoffice at San Francisco, California, under the Act of Congress of March 3, 1879.

Exchanges address to C. S. M. A., Sixteenth and Utah Streets, San Francisco, California.

SAMUEL J. OGILVIE, '13.....Editor
RALPH M. HEINTZ, '13.....Business Manager

EDITORIAL STAFF.

MILTON B. WEIDENTHAL, '13, Associate.

FLORENCE GERSON, '13.....	Literary
DAVID McCAW, '13	Technical
FRED SIEBENHAUER, '13.....	Exchanges
GIFFORD G. WILLS, '13.....	Exchanges
LEONA GOODMAN, '13.....	School Notes
LELAND BORUCK, '13.....	School Notes
REY CHATFIELD, '10 (U. C.).....	Alumni
ARTHUR W. WYNNE, '11 (S.).....	Alumni
LILLIAN DINKELMAN, '13.....	Shop Notes
CARMEN BIEBER, '13.....	Shop Notes
BENJAMIN BUZZO, '13.....	Athletics
ELEANOR HAUERKEN, '13.....	Athletics
FRANCIS SCHWARTZENBEK, '14.....	Athletics
THOMAS DEVINE, '13.....	Josches
ALVIN OSGOOD, '13.....	Josches
RICHARD STONE, '13.....	Photos
WILLIAM CROWELL, '13.....	Photos
MADELINE HOGAN, '14.....	Art
BUTLER OSBORNE, '13.....	Art
WILHELM WATERMAN, '14.....	Art
EVERETT STALLMAN, '13.....	Art

MANAGER'S STAFF.

LEO WERTHEIMER	MISS DORIS SLACK	ALEXANDER HIGH
MISS ISABEL LIGHTBODY	STUART FRIER	
VICTOR RASMUSSEN	H. TRAUNER	RAY BOWES

Again we are here. The only thing we wish to complain about is the lack of criticism on our last issue. We will not find fault very seriously as this is the season of rejoicing. The Tiger wishes all the faculty, the students and readers a Merry Christmas and Happy New Year.

The Senior Farce

It has been a custom for the graduating class to hold a farce. This year there has been some talk about not having a play. There are only a few months left in which to make preparations if this Senior class intends to exhibit their talent. The only provision, as far as known, is that the class must show that it will support those interested in the work.

Now, fellows, show some of that "old Lick spirit" and get to work on a farce. There are plenty of people in the class who have had experience in this line and we could have something that would equal if not excel past "Senior farces."

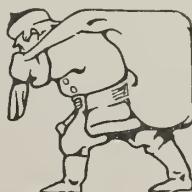
Compulsory Dues

There is an amendment to the constitution that is being discussed in the board of control about compulsory dues. This seems to be about the only solution of a serious matter that has bothered the school for a long time. It hardly can be believed that students in high school must be forced to support their student body. We are not complaining about the support at the games and social affairs. Instead we refer to the spirit of always looking for pleasant things and not attending to the more serious side. It is absolutely necessary to have business rallies and also to ask you to pay dues. Now that it has come to an issue, be sure and give your consent to the matter when it is presented for your ratification. The dues will not be too heavy for anyone, so be sure and agree to it.

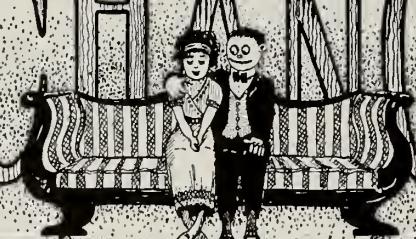
Camera Club Dance

One of the societies that has come into prominence of late is the Camera Club. It intends to hold a lecture and dance about the middle of January. This will be the first social event held this year. The societies and classes have sort of given up the idea of having affairs. This is a condition that requires attention. In the past there have been numerous evenings and all have been successful. Why can't we do it now? This Camera Club dance seems to be a start in the right direction and we hope it will establish a precedent.

Fellows, be sure and help this club!



EXCHANGES



E. OSBORNE.

Our exchanges are constantly growing larger. We easily can say we receive a hundred or more exchanges. We will only exchange "large bound papers," and not the daily, tri-weekly, bi-weekly and weekly sheets. We will, however, always mention those received and hope they will continue coming.

The following "sheets" we wish to acknowledge:

The Visalia High School News, Visalia, Cal.; *The Review*, McMinnville, Oregon; *The School Herald*, San Jose, Calif.; *Tennessee Military Institute*, Sweetwater, Tenn.; *Shortridge Daily Echo*, Shortridge High School, Indianapolis, Ind.; *The Sherman Bulletin*, Riverside, Calif.; *The Normal Times*, State Normal, San Jose, Calif.

The Carlisle Arrow, Carlisle, Pa.—Your papers show great interest and spirit. Why not develop more literary material? Come again!

Redwood Chips; Del Norte County High.—Your paper is interesting and original. Keeping in mind the number of students, we may say your paper ranks amongst the best.

The Chaparral, Stanford University, Calif. (Football Number).—Again we find your paper one of the best exchanges. Come again, *Chaparral*!

The Congress; Ocean High School, Ocean, New York.—Do consider a new cover design! The present one is elegant, but not legible. A fly-leaf would improve your paper a great deal.

Madroño, Palo Alto, Cal.—Your cover is excellent; also all your sketches. As a whole, your paper could not be improved.

The Lowell, San Francisco (September Number).—Under your new management you have succeeded in turning out an excellent monthly. The cover design deserves special mention.

The Gondolier, Venice, Calif.—Your paper is interesting in every respect. Do let us have more of your work!

Normal High School; Albany, New York.—A few more cuts and a better grade of paper would greatly improve the looks of the *Crimson and White*.

The Crescent; Newberg, Oregon.—Under your "Staff" we find an exchange editoress. But she merely acknowledges the papers. Put her to work! Why not offer a year's subscription for a few drawings for the cover?

The Reveille; Newark, Ohio (October Number).—Keep all your ads. in the back of the paper. Add a fly-leaf and use a separate sheet for each subject, and we are sure you will agree that the paper would be greatly improved.

The Forum; Mt. Vernon, Ohio.—We might suggest the very same to you. Do use a few cuts; they are so attractive!

The B. H. S. Tattler; Atlanta, Ga.—Your little book contains a great deal of news; also school spirit. Why not improve your cover design?

The Clarion, Appleton, Wis.—Your paper could be greatly improved by confining your ads. to the rear, and also by lengthening your athletic column. Why not make use of a tailpiece instead of leaving a blank half page?

The Totem; Seattle, Wash.—Though *The Totem* is our oldest exchange, it is certainly a fine paper. You show a fine school spirit in it. Although you mention the fact that you dislike putting jokes among the ads., we notice that your own jokes are both preceded and separated by them.

The Echoes; Council Bluffs, Iowa.—You criticize other papers for a lack of illustrations. Why not have a few yourselves?

The Review; Washington, D. C.—A few headpieces would certainly help your paper. It would also help to divide the subjects under the various heads and thereby keep the ads. in the rear.

The Echo; Santa Rosa, Calif.—Better cuts are the only things that your paper seems to need. While your criticism about the ad. on the back of THE TIGER may be a good one, why do you not take it yourself?

The Daedalian; Denton, Texas.—In your paper the "College Directory" and the "Amendments to the Constitution" are found to be very satisfactory material, though the lack of a joke column gives it a feeling of being unfinished.

The Cardinal; Portland, Ore.—*The Cardinal* is one of our best monthlies and the stories are exceptionally good. You deserve a great deal of credit for having such a large joke department. The ads. in the front detract.

The Mirror; Sharon, Pa.—In your Hallowe'en number of *The Mirror* you have divided it in two by inserting a page of ads. in the center. This is exceedingly distasteful to the average reader. Your "Poets' and Philosophers' Corner" is unique and interesting.

The Raquet; Portland, Ore.—Your paper is very interesting. "The Exile" is short but clever, and the "Peaceful Village" is well written. Through a lack of originality in your joke columns you are prevented from being among the best that we have received.

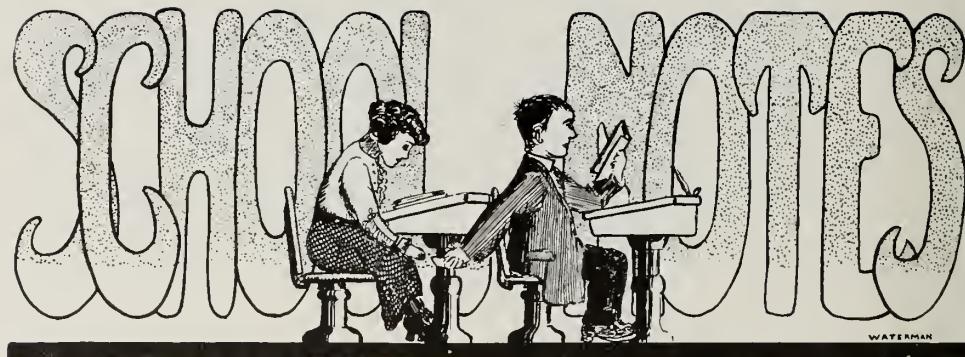
The Wilmerding Life; San Francisco, Calif.—Your paper is the best exchange on our table. It is exceptionally good in being the first issue. Keep up the good work!

The Florida School Exponent; Tallahassee, Fla.—Your exchange is a new one for us and the material seems good though dry. Ads. running in the paper do not improve it.

Red and Black; Salt Lake City, Utah.—Your paper is very good though some of your headpieces could be used as cartoons. We wish to congratulate you on having such a large joke department.

The Shucis; Schenectady, N. Y.—The "Callanan Essay" in your paper is very good. Ads. in the front and poor cuts detract from your otherwise good paper.





Announcement

Dear Sam:—

As editors of this department, we know that certain requirements are expected of us, and realizing this, we have endeavored to do our best to accomplish these things conscientiously not only for THE TIGER, but for our school. Yet it seems that our task has proven too big a burden for us, judging from the contributions we have received for this issue.

Several sets of cartoons have been mailed to our office, with a very urgent—and we might say impressive—plea that the pictures be printed. Instead of turning these into the joke department, which no doubt would appreciate the work, our good-nature was imposed upon. Then one of the Lux girls overheard a conversation during a rally, and instead of sending it to the Ladies' Home Journal as an article on "Dress and Adornment," graciously contributed it to our department. But this is not all,—two days before we went to print a messenger brought a very witty article addressed to "Windy" Boruck and signed in big letters "Cupid." Of course, to those familiar with the school community, it can be easily guessed who contributed this article.

With this in mind, we feel that some explanation is due our readers as to the confused and unattractive condition in which the School Notes for this issue are compiled, yet we are quite confident that our subscribers will see our difficulty and overlook our faults.

Very truly yours,

LEONA GOODMAN,
LELAND M. BORUCK.

Second Rally

On Wednesday afternoon, October 2, 1912, the second rally of the year was opened with a "Brackety Ax" lead by Vic. Rasmussen, and a selection from the orchestra under the direction of Herm. Kohlmoos. President La Belle introduced Devine, who spoke on football for Manager Buzzo. After a short and concise talk on the merits of our team, Devine presented to the A. A. L., through Mr. Tibbets, secretary of that body, the cup won by Lick in 1911 in American football. The cup was returned to the league by Lick to be contested for in Rugby football under the same conditions as it was donated as a trophy of the American game. Mr. Tibbets commended the action of the student body and expressed the league's appreciation.

Johnnie Little, '09, and Carrol Haffen, '12, two old timers, were given a hearty reception. Each gave a few words of advice to the football team and wished them all possible success.



THE
ORCHESTRA



NO WONDER
WE HAVE
SUFFRAGE TS

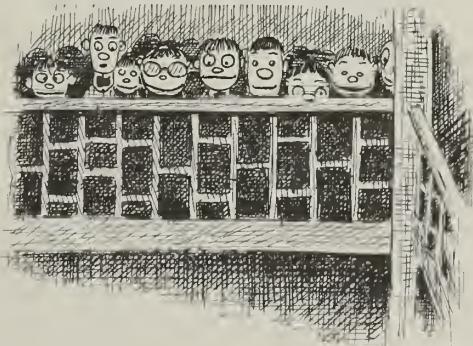


WHO'S IT ?

WINDY
SPOKE



THE GALLERY



T H E T I G E R.

Manager Kidder of the swimming team urged all those who could swim to begin preparation for tryouts to be held shortly at the Y. M. C. A.. Captain Iddings announced that Lick would enter the B. C. A. L. in the later part of next month and expressed his opinion that C. S. M. A. would come out victorious.

Track Captain Mangelsdorf announced that the S. F. Sub-league would be held at the Stadium.

Editor Ogilvie of THE TIGER mentioned how hard those on the staff had worked to make the first issue of the paper a success. "Ishi" Heintz, manager, substantiated Editor Ogilvie's remarks by stating that the first issue of THE TIGER this year would mark an epoch in the history of the journal.

Franz Nybye spoke on basketball for Manager Velisaratos. Practise will be started shortly and all those who have a tendency toward the game are requested to be present. During the rainy season practise will be held indoors.

Miss Edith Holuber, manager of the girls' basketball team, before announcing that the girls' interclass would be run off before the end of the month, sprung a joke before the Student Body that seemed to make "Windy" blush? Wonder why?

At this point of the rally, public sentiment forced President La Belle to call upon the orchestra for another selection. THE TIGER takes this opportunity to commend the orchestra upon its excellent playing.

Next came It. Boruck, who announced, to the surprise of us all, that Mayor Rolph and Judge Kerrigan had agreed to act as judges on the evening of the final debate. He urged the hearty co-operation of all the school in making this evening a huge success.

Third Rally

Wednesday afternoon, October 9, 1912, "we" had a rally. (The "we" is used editorially), which was attended by all those who didn't go to the Orpheum, or the dentist? or didn't have anything else to do. And by the looks of things it appears that the Lick students are a very busy lot on Wednesday afternoons.

Yell Leader Vic. Rasmussen opened the exercises with a "Locomotive" which sounded like an '06 Reo climbing a 30% grade on the high. (If you can just stretch your imagination far enough to imagine an '06 Reo climbing ANY hill, for that matter, on the *high* you'll know precisely how that yell sounded.) Next, "three big ones for President La Belle." President La Belle, Rah! Rah! Rah! President La Belle.

Manager Buzzo then got up and told us about the game "we" were going to win Saturday and urged us to attend the slaughter; but, judging from the attendance, the Lick students are very tender-hearted. Following close behind Buzzo, came dainty, dashing "Little Eva" McAbee, who repeated what Manager Buzzo had said,—then tried to think of something else, and failed. Next came "Kaiser" Oscar Hacke, who started to speak, but felt a draft ("Windy" was standing behind the cup-case) and made a hasty exit. Webster and Walker (though not a vaudeville troupe), added much to the afternoon's entertainment

We were next treated to an elaborate and elevating monologue by the celebrated linguistic master, Leland Boruck, whose speech carried us into the heights of ecstasy (hot air is very buoyant. M. A. Plumb), and who then brought us suddenly to earth by cleverly asking us to loosen our pocketbook strings.

The greatest attraction under canvas, "Pickle Zip" Heintz, the enigma of the sixth dimension, after being formally introduced, spoke of having some new school yells and songs. He failed, however, to mention that what we really needed were rooters to yell the yells and singers to sing the songs.

But let's not complain; all those present put their hearts and souls ('tis safe to say none of those present will ever die of enlargement of the heart) into a Brackety Ax, and then made one grand rush for a car.

CUPID.

Fourth Rally

"Come on, girls, there's going to be a rally at noon to-day. Do I look all right? Too much powder on my nose? Now! My hair need fixing? All right now, let's go sit on the steps. These seats are just grand; we can see everybody."

"Oh! there's Leona with a new dress. Isn't it just adorable? I think she wears the cutest clothes and—Hush!—Sh! Girls, here's President La Belle going to start the rally."

"Look! there's Victor leading a yell. I think he's awfully nice. Oh! Flora, did you ever notice what lovely ties he wears? So becoming, don't you think? I can't help clapping; I love that yell so."

"Here's Manager Buzzo of the football team. Listen! He says that the Lick vs. St. Ignatius will be a hard game and we all must support it if we expect to win. Well, I don't need to worry; Harry has tickets and I'm going to wear my new dress. Yes, the one with the brocaded silk and ruffles around the bottom. What are you going to wear? Oh! that one! How lovely."

"Clap for Captain McAbee. He looks like a regular Hercules, doesn't he? I think he's so brave to play football, don't you? it's such a rough game."

"Who's been talking? I haven't been listening. I was not smiling at that fellow over there and besides he's nothing but a Freshman a—Oh! Hazel, look at Cupid winking at Miss Alexander. See her blush. I saw him the other day on Fillmore street talking to the dearest little girl you ever laid your eyes on. Did I miss Phil Webster and "Chick" Stallman? I'm so sorry. I think Phil combs his hair so becomingly. Who's this? Poor "Babe" Walker; he looks scared to death, yet he's a regular "*tiger*" on the field. Here's Bowes talking on school spirit. I think he's awfully cute. Well, with all this boasting there certainly ought to be a big crowd at the game."

"Listen to 'Buck' Thorn—a free track meet at the Stadium Saturday afternoon. Isn't that grand? And here's Captain Mangelsdorf. I bet he's going to run. If he does I'll surely go. He's gotten to be an awful queener."

"Now we'll hear when THE TIGER comes out. I just dote on Sam Ogilvie. He's what I call class. Hear that? Just think, THE TIGER comes out to-morrow. Sh! Here is "Chow-Chow" Heintz. Doesn't he look fierce since he's had his hair cut? What's that he's saying about THE TIGER being bum? I don't believe it. Anyway, we'll see."

"Oh! Pshaw! there's that old whistle. Wait, Helen! We must clap for this Ali Bibo and Vic. Rasmussen. All over. Now hurry, Flora; I just must fix my hair before going to English."

Fifth Rally

A rally was held October 25, 1912. For the first time since the opening rally a large crowd attended and the yelling and enthusiasm was beyond comparison. Little Vic. opened the rally with a "Give 'in the ax," which sounded like a "Bull Moose" victory.

THE TIGER.

Vice-President Miss Goodman, with poise and self-possession, conducted the rally in a very commendable manner.

Manager Buzzo of the football team asked for the support of the Student Body at the Lowell game and complained that the tickets had been selling very poorly. Captain McAbee stated that the team would give Lowell the worst licking she'd had in a long time.

Phil. Webster and "Babe" Walker expressed their opinions on the Lowell game; especially Walker, who congratulated the lower classes on their spirit as he had only seen about three of them at any of the previous games.

"Here's to the Black and Gold" was sung with great feeling, followed by a splendid "Brackety Ax."

Sam Ogilvie asked to have our long-time friend, "Bill" Pappas, come up on the platform. When Bill appeared the old building resounded with the clapping and yelling. With a few impressive words, Sam presented Bill with a little token of remembrance, which he said would help to hold Bill's tie in place when chasing the Turks.

"General" Pappas responded by thanking those who so thoughtfully had remembered him. He said he was sorry to leave, but his duty to his native country, Greece, compelled him to return and serve as a soldier.

Manager Mangelsdorf presented to Vice-President Goodman a cup won by the relay team in the S. F. Sub-league.

Sixth Rally

Another enthusiastic rally was held at noon on November 27, 1912. Vic. Rasmussen opened it with a snappy "Give 'm the Ax," which sounded like they meant business.

President of the Hiking, I. N. Frank, spoke upon the merits of the new organization and gave a brief idea as to the society's purpose and plans and concluded by asking that any members of the student-body interested in hiking and enjoying short trips into the country join as soon as convenient, but that they would be welcomed into the club at any time.

Manager Velisaratos of the basketball team announced that Paul Holman, '12, had offered to coach the team. Also, the interclass would be played off to-day at the Armory's court.

Hire A. Hall, president of the Camera Club, announced that a big blowout would be given by that organization after Christmas. We're glad somebody's going to do something at last, for society has certainly been dead—DEAD—this last six months.

After practising several yells the rally broke up.

The Camera Club

The Camera Club started its work this year by having a meeting which was attended by a large crowd. Every class was well represented and took an active part in the meeting.

The dark room in the shop building has been put into excellent shape by A. Hall, who gave the rooms a heavy coat of black paint. Mangelsdorf installed a printing box, which he made, and which comes into good use. An arc lamp was loaned to the Camera Club by Mr. Heintz, to be used for an indefinite length of time, the purpose being to enlarge pictures. When the boys' room is entirely improved the girls' dark room will be attended to.

The club is very anxious to hold some picnics and tramps so that inter-

esting pictures can be taken. A prize contest is now in progress and pictures must be in before November 29th, as the contest will then close. A \$2.50 merchandise order will be the first prize. Every effort should be put into this because next year the Camera Club will be one of the leading societies in the school.

Alumni Notes

Al Wetmore, '10, captain of the Lick football team for the season of 1909, and Nash, '11, plan to take up a homestead claim in Modoc county and start ranching.

Ed White, '12, is at present attending business college.

Carl von der Mehden, '10, and John Uhte, '10, are employed at the Union Iron Works.

Hirschfeld, '07, is manager of a lumber company operating yards in Butte county.

"Cy" Wilder, ex-'10, is at present a student at West Point.

George Montgomery, '10, is employed by the Burroughs Adding Machine Company.

Al Margo, '10, has taken a year's leave of absence and is employed by Holbrook, Merrill and Stetson in San Francisco.

Arthur Felt, '09, manager of the Tiger for that year, is running a dairy ranch near Santa Cruz.

Fred Barkis, '10, is employed by the Western States Gas and Electric Company at Lodi.

Florence Reinhold, '10, is at present teaching drawing at Wilmerding.

Gladys Elliot, ex-'10, is recorder at Wilmerding, and Ruby Mitchell, '10, is recorder for the Lux School.

Oral Barker, '11, is employed by the Oakland and Antioch Railway Company.

Carrick, '07, is manager of a mine at French Gulch, Shasta county.

John Little, '09, has been in South America for the Butters Mining Company.

Fred Hornick, '10, is now a broker at San Francisco.

California

With the holidays approaching, Lick graduates at California begin to prepare for the final examinations in December. Being thus employed they manage to keep out of mischief and hence from undue prominence.

Now that the Big Game is a thing of the past and our friends at Stanford have had their fondest hopes dashed, it may be of interest to the students to know that Clyde A. Pitchford, '10, and Bert Deleray, '10, are the assistant yell leaders here at California this year and were partly responsible for the "organized noise" at the Big Game.

Edgar Rust, '11, has taken a leave of absence but expects to be back on the campus again next fall.

Stanford

Cheering for Stanford and yelling themselves hoarse at the "Big Game" this year were nine former Lick students. The splash on California marsh has become history, so there is little to be said. Everyone knows that if it

were not otherwise decreed by the powers above (in this case by Jupiter Pluvius) the Cardinal would have serpentinized—as far as that was possible on such a slippery dance platform—after the teams had taken their mud-bath. E-nuf!

When he is not shouting for the Varsity, Cecil Simon, '09, spends most of his time around the Engineering Corner, where the "roughs" hang out; for "Cy" has high hopes of becoming a full-fledged mechanical engineer next May.

The oldest Lick man here, "Dodo" Barnett, may be seen any afternoon romping over the farm with a transit upon his shoulder looking for a soft, shady spot where he can work (?). "Dodo" was in the '08 class at "the dear little school 'neath the hill" and took up geology when he transferred his affections to Stanford.

Dan Rohrback, '10, now sports a dilapidated plug covered with pictures of the Quad and—well, I really can't tell you what else is on that hat. You see, Dan is a Junior and a mechanical engineering major, and, therefore, it is impossible to tell in polite society just what he might do or have painted on his plug.

What do you know about it? Our only other Junior and our only Lick girl—must I say woman now?—has "gone and done it." (Remember I told you that you never can tell what a Junior will do.) Mrs. Argabrite.—Who? Why, Marguerite Boyd, '10, of course. Well, Mrs. Argabrite married Mr. Argabrite shortly after he had received his degree here with the class of 1912 last May. Marguerite is just as good a student as she was when she was the star of Lick's girls' basketball team, and she is right in line for Phi Beta Kappa, the scholarship honor fraternity. She is the Kappa part of it already. (You can figure that out for yourself.)

Since "Bill" Beatty, who also registered with the 1914 class, but who has been out of college for a year, became the life partner of Miss Winters a couple of weeks ago, we are all wondering who will be next. The rest of us take this opportunity of wishing them both "good luck."

Do you remember, when '11 were Seniors, that funny, little, fat boy who tried to act? Yes, George Heynemann. "Heinie" has grown into quite a man and also into a bit more flesh; but has not yet outgrown the habit of rough-housing he acquired at the California School of Mechanical Arts. If ability to talk and keep talking counts for anything he will make a great lawyer some day—maybe. Putting all joshing aside, George has a splendid chance to graduate in three years instead of the customary four.

Ernie Waters, another '11 man, entered this year, and he loyally flaunts the Cardinal's colors under his Freshman cap. (That's a joke: he is red-headed.) If he is as industrious as he was at Lick, Ernest will receive his A. B. in electrical engineering in 1916.

Among the latest arrivals, who wonder how on earth they are going to "last" four years when work keeps piling up more and more and there seems to be no end to it, is Frederick (too much) Noyes Worth, '12. "Fritz" says the Freshman's lot is not a happy one, and adds that he would rather be presiding over a Wednesday afternoon rally than trying to win a degree in economics.

One day I saw a long, lean, lanky, lubberly "Frosh," whose rustic appearance seemed somewhat familiar, trying to seem dignified beneath a "dink"—a hopeless task! It was Mervyn J. Cody. He was '13 when he attended Lick but came to college ahead of his class as a special. M. J. majors in mechanical engineering. He and Fred are inseparable.

Paul Wormser, '11, I am sorry to say, was forced to leave college temporarily after he had registered this semester, on account of his health.

He was making a splendid record and we all hope that he will be able to return soon.

As ever trying to be humorous (as he is even at this moment) is Arthur W. Wynne, '10—better known as Artie. Now that rugby is over he may be found loafing around the Daily Palo Alto office, where he has never been known to do any work. Artie makes great use of the '15 sweater he won on his Freshman football team. He wears it continually so that no one can forget his prowess as a player and that he may save his laundry bill. From the type of American he writes, it is easy to see that Art is an English major. He is just as prompt as ever and may be seen any morning, with breakfast in hand, rushing to class.



SHOP NOTES

Wall, Josh, yew jest set yurself down on that there cider barrel and I'll tell yu all about them shops that I saw at Lick. They first tuk me through the department of

Mechanical Drawing

I here found out that Miss Boulware had her Freshies jest finishing their plate of circles and were beginning the lettering plate. She said, said she, that they were all doin' recommendin' work, in a certain time limit. "Twas then that I found that the Junior apprentices were well finished their sheets and were now doin' "real" work.

I were then interduced to every gol dern Senior apprentice there. A breezy feller named Olney said that he had been working all quarter on a foundry crane, and one called the Butler sed he were doin' a uniflow 6-h. p. steam engine, that was outside work. Two little fellers—McAbee and Buzzo—were tryin' to work some vacuum pump figures, though McAbee were workin' on a 30-h. p. gas engine and Buzzo on a 5-h. p. Diesel engine. Cate were drawin' a "Page Impact Testing Machine," while young Klein were studyin' septic tanks. Nybye is workin' an abrasion machine. Benson were doin' a 30-h. p. marine engin' and Piepenbrink is still on a rod-bending machine.

Mr. Hyman, the professor of this bunch, said that they were all busy improvin' the new Lux Vacuum Pump, and that the Sophomores were still on their orthographic projections.

We then went into the

Pattern Shop

When we went in the door I saw a pile of boxes biggern our last year's hay pile. They said that they were the 225 new foundry boxes that were jest made by the Freshmen, and were waitin' for Mr. Lacoste. They have also turned out the patterns for the valve of the brazing machine, mechanics' models, and a 36-inch flywheel. Roth, the only apprentice, were workin' on the rock crusher. In the

Foundry

Mr. Lacoste said that he had at last found his first real molder. He said that his name were Blanchly and that he were a shark. He also sed he had a new class and that they turned out parts of the turbine, some anvil stands for Mr. Mathis, and a few pieces of the steam hoist. Then, in

Forge

I saw some black lookin' Sophomores thet were weldin' some bolts. My, but some of them were small. No biggern yer finger, but wieldin' the hammer jest the same.

A nother curiosity thet I saw in here was Coleman, called "Slim," who was a talkin' so much thet the words got under his hammer and were driven into the hot iron. He were thet tall thet the work he handled was no biggern a pin. Hacke, the shinin' light, were a doin' work for Hank, the engineer of the Star Woolen Mills, and Hess were workin' I bolts and levers for the steam pump. Winter were doin' odd jobs and andirons.

Machine Shop

Was interestin' because everybody was busy doin' nothin'. Besides doin' this Wayman and Friend were still workin' on thet there vacuum pump, while Frier and Hess are still workin' on their long finished steam hoist. Chief Dixon isn't doin' anythin' and Cannon were workin' on the pipe cutter. Pasch were a doin' odd jobs, and the vacuum pump. Kirkwood is workin' on the wood lathe and Hansen is doin' odd jobs.

Chemistry

In Chemistry after I hed found out thet the Sophomores were takin' valence, an' that the gurls were gettin' into the household part of chemistry, a feller went an' told me thet the three Junior apprentices, Blade, Kolb and Langlois, them what they call the "Little Three," were thru their work in thet there qualitative analysis an' were then agoin' t' analyse samples of minerals. Says he t' me, "Kolb's been a-tryin' t' analyse a solution of distilled water from which he could get nothin' an' were quite peeved 'bout it. Haw, haw!"

They said thet them there Seniors, LaBelle, Thorn, Heintz and Iddings, them what is called the "Big Four," were a-gettin' right fair results in their analisis of the Lux School cement. They are now doin' the different waters from around the bay and they sed thet they were a-goin' to do the steel and then organic chemistry.

Millinery

Nowhere can a better selection of well-made winter hats be found than at the Lux School. One is amazed at the good taste and number of different shapes and color schemes of the hats. They have certainly believed in and practiced the theory that "variety is the spice of life."

The remodeling of old hats proved interesting. Some remodeled winter hats and buckram frames, others recovered summer hats, and all found out the cost of the materials and knew how much they saved by exercising their ingenuity.

Roses, bows, rosettes and ornaments have been made and have proven worthy of adorning the above-mentioned hats.

The girls have showed their ability in mending and sewing together fur. The sewing is absolutely invisible on the right side of the fur. As a result we'll soon have neck pieces out of scraps of fur to vie with those of a furrier. Expert lace-mending is well worth mentioning. The girls have mended and wired fine pieces of lace so carefully that the seam which joins the two parts can scarcely be seen. In this renovating department old pieces of velvet have been steamed and made ready for further use.

Execution of the embroidery designs worked out in the drawing department is also being accomplished in this college. Baby bonnets, shirt-waists, guest towels, bureau scarfs, boudoir caps or any desired types of embroidery are being made here.

Having now a good idea of various designs and the way to reproduce them, perhaps the most enjoyable work of the term is about to be undertaken in the making of Christmas hats for the little children at the Orphan Asylum. This carries out the plan which is followed every year at this time.

Drawing

The Freshman work in drawing this quarter has been in still life. Both color and black and white work has been done. With their knowledge of the Reinhardt alphabet and practice as a basis they are making Christmas cards. A particular feature of these are the mottoes which are very attractive. This alphabet has also been useful in furnishing the means for heading and labeling papers or boxes concerned with other courses.

The Sophomores have been busy with the study of the house—inside and out. They have been rendering prospective drawing of parts of rooms and their furniture. The girls have studied the various appropriate styles, decorations and draperies in the house and of the house as seen from without. A study of parts of the house, fireplaces, stairways, ceilings, windows, doors, roofs and the history of the development of the technical name of these parts has been made. This study makes the planning of the house and its decorations an interesting problem.

Aside from these, they have worked out original white embroidery designs for sewing and model bows as well as ornaments for hats and for ribbon fabric.

Aided by their work in water colors and in black and white, they have been able to make a great success of their Christmas cards.

The striking feature of the work of the Junior Drawing Class was displayed on the afternoon of the last day of October, in the form of a Hallowe'en party. The only light, in the bungalow, was furnished by candles, crowned by candle shades of the girls' own designs and electric lights covered with artistic shades. Black cats, witches and many other appropriate symbols of the day were grouped about the room. A poster excellently characteristic of the whole affair announced the function on the bulletin board in the hall at Lick.

To come down to more serious work, they have designed baby dress embroidery, Christmas boxes and worked on mechanical construction problems.

Miss Carreras, of the Normal Class, gave an interesting lecture on roof materials, Miss Waddell on window draperies, and Mr. Merrill, with Wilmerding models, an especially instructive one on roof construction.

As an outside trip this quarter, the class went to the Berkeley exhibit, seeing there equipments of modern homes both from the standpoint of hygiene and convenience.

The Senior girls have finished drawing the bungalow plans and along with this they have studied elevation, perspective, arrangement of furniture in the house. Price lists of furniture, obtained by visiting different warehouses, have made the subject of furniture a very concrete one. A study of parts of the house in detail finished their work for the quarter.

Cooking

The Junior and Normal girls are by this time quite experienced cooks. They are now preparing luncheon dishes, luncheon desserts, cream soups and salads. The salads are being prepared as substitutes for meats. Later, the girls will prepare practice meals, and will be taught how to serve them properly. Before Thanksgiving the girls will get some practice in pastry making. The last two or three weeks at the end of the quarter will be spent in making candies, cookies and cakes. This is to prepare the girls for their work on Christmas luxuries.

The Normal girls are doing practically the same work as the Juniors, except that they do it more from the standpoint of teachers. These girls are getting splendid practice as they spend several afternoons a week teaching in settlements here and in Oakland.

Sewing

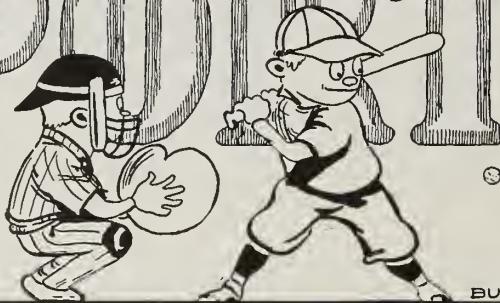
The sewing classes are busily engaged in the work of the second quarter. Some of the Freshmen are making their designs and patterns for their undergarments, while others have completed the patterns and begun work on the garments. A great many of the girls have designed their own embroidery patterns, and some original designs are expected when they finish the garments.

The Sophomore girls are working on their winter dresses, which will probably be completed by the end of this quarter. These girls have also designed their dresses, and drafted the patterns for them. They are also doing some side work, which they delight in. This work is making the blouses for the shop boys.

The Junior girls are still on the infant sets. They are working hard and steadily, because they have a great deal of embroidery work to accomplish this quarter. Some of the Junior girls have made their embroidery designs also, and are now working them up.

The Seniors—Misses Hadeler, Bieber and Hauerken—are now on their tailor coats for the little model. They have made the patterns and cut the lining, and are now busy basting it together. After the coats have been fitted, the girls will be able to work more quickly. They expect to start work on their own tailor suits as soon as the practice coats are finished.

SPORTS



BUTLER OSBORNE

Football

Throughout our entire practice season the men that were out for the team worked hard, and it was a fast, hard-fighting team which entered the League series.

We were handicapped this season by not being able to secure a coach. Much credit is due Captain McAbee, who acted as coach, for turning out as good a team as he did.

The men were in good condition throughout the entire season, and many of our points were scored in the last few minutes of play, when our condition proved to be better than that of our opponents. But few of our men have had any serious injuries throughout the season. Webster, who hurt his knee in the Lowell game, and Keith, who was unable to play after that game on account of a bad shoulder, are the only two that sustained injuries which kept them from finishing the season with the team.

The Subleague series was opened on Saturday, October 12, by a game with Cogswell.

Cogswell 9, Lick 3

In this game Lick found herself against the team that was considered the strongest in the Subleague. The game was started by Lick kicking to Cogswell. Our forwards held Cogswell within her twenty-five-yard line for a short time, but they kicked to touch at about the center of the field. The ball was played across the center line for the greater part of the first half, Cogswell finally scoring on a passing rush of her back field. The half ended with a 3 to 0 score in favor of Cogswell.

In the second half Lick was forced to a line-out on her twenty-five-yard line. The ball was passed out on the Lick side and Duckel kicked. This kick was blocked and Cogswell scored on a passing rush of her back field.

Lick was next to score. Our team had kicked to touch within the Cogswell twenty-five-yard line, and after the line-out Winter scored.

Within the last few minutes of play the ball was but a few yards from the Lick goal. A scrum was given on account of a held ball and Cogswell's backs carried the ball over the line. This made the final score Cogswell 9, Lick 3. None of the tries throughout the game were converted. Both teams were in good condition and played a clean, fast game.

Lick 6, St. Ignatius 0

In the second game, on Wednesday, October 16, Lick played the St. Ignatius team. This team had a heavy set of forwards, and it was on them that our opponents relied. The aggressive work of the Lick forwards had

always been considered the weak point of our team, but they played the greater part of this game and won.

In the first half the ball was kept close to the center of the field, the teams being very evenly matched. The half ended with no score for either side. The Lick team came on the field with the determination of winning in the second half. Soon after the game was started again we scored. Our backs got the ball in the loose and after a passing rush McAbee scored. This try was followed closely by another. A passing rush resulted after a line-out, in which McLachlan carried the ball over the line. The final score was Lick 6, St. Ignatius 0, neither try being converted.

Lick 3, Lowell 0

On Saturday morning, October 26, Lick played her old rival—Lowell. The team entered the field with plenty of Lick spirit and was helped along by a large rooting section. The field was slow, which was an advantage to Lowell rather than to us, for our opponents had a much heavier scrum.

Lowell kicked off to start the first half. The ball stayed in Lick territory for some time, then zig-zagged back to the middle of the field, the forwards playing most of the game. After a dribbling rush of the Lick forwards, which ended in a ruck on the Lowell ten-yard line, Duckel got the ball and went over for a try. It was not converted. The half ended with the score 3 to 0 in favor of Lick.

Lick had a harder team against it in the second half. The Lowell team had lots of fight and kept the ball in midfield. The climax came near the end of the game. The referee blew his whistle for an offside, and the Lick team stopped playing. Lowell, on the other hand, claimed that his whistle was not sounded, and carried the ball over for a try. The captains of the two teams and the referee had a long argument over this point, and Lowell finally accepted a scrum where the offside had occurred. The playing time was over, and Lick finished the game by kicking the ball to touch. Final score: Lick 3, Lowell 0.

Mission 3, Lick 0

On Wednesday afternoon, October 30, Lick lined up against Mission for the final game in our Subleague series. The weather was clear and the field was in fine condition. A fast game was played.

Mission kicked to Lick and the forwards followed down so fast that the ball stayed in Lick territory, as it did for the greater part of the half. On back field passing rushes, the Pink and Green advanced the ball close to the Lick line, where a scrum occurred. Lick got the ball, and Walker, our halfback, tried to punt out of danger, but the kick was blocked, and a Mission player fell on the ball over our goal line. This was the only score of the game. The score at half time was: Mission 3, Lick 0.

Lick followed the ball up well in the second half. After a short dribbling rush Mission was held to a twenty-five-yard drop-out. After this period the ball was played again in Lick territory and the team had a hard time to keep Mission from scoring again. However, Lick came back at the end of the game. By a successful dribbling rush, Lick advanced the ball to a line-out on the Mission ten-yard line, when the referee called time.

T H E T I G E R.

The final score was: Mission 3, Lick 0. This was the fastest and one of the cleanest games in which Lick had played throughout the season.

For the League games the team lined up as follows:

Forwards—Bowes, Hacke, Gaustad, Buzzo, Butler, Johnson, Keith (Junker, Thorn, Smith, De Guerre).

Halfback—Walker.

Wing Forward—McAbee (captain).

Five-eighths—Duckel and Stallman.

Three-quarters—Webster, McLachlan and Winter (Mehrtens).

Fullback—Mehrtens (Junker).

Summary

Although we have not won the championship, the season has been successful from every point of view. The team is a new one. The greater number of the players were "found" this year and developed into hard fighters. The team worked well together and each man did his part.

Although we had no regular coach, the team was assisted by several of the alumnae, who helped us at school and attended the games. Of these men, Ed White of last year's team helped the most. He came out as regularly as one trying out for the team and showed the men, especially the forwards, what he had learned of the game. Another man that helped us was "Dutch" Roth, an old Stanford man. He was with the team just before the Subleague series started, and in a short time showed the team a great many things that helped them play a better game.

Baseball

The football season is ended and we open the next semester with another game, that of baseball. We have Ben Buzzo to captain the team this year, and he is backed by an able manager, Jim Butler. The fellows have looked forward toward the coming of the baseball season with much more interest than has been shown for several years past. The prospects for a winning team are bright. The veterans that are at school are Captain Buzzo, McAbee, Stallman, Winter, Gabriel, Butler, Rogers and Duckel. Besides these there are still a few notables of last year, of whom "Buck" Thorn is an example. Glenn Laughlin, our second sacker of two years ago, is with us again, and our captain is looking forward for some hard contests between the men to secure positions.

The fellows have started with the right spirit and have prospects of a winning team. The support will show what the team is worth.

Basketball

Now that football is over, basketball practice will start with a determined squad from which to make a winning team for Lick. Without the aid of the basket-tossers who were then playing the league schedule on the football team, the men have played a few practice games. The material shows up exceedingly well and, with strong training, it should develop into a fast team. The indoor court of the National Guard at California street and Van Ness avenue has been obtained, and practice three times a week is being held. Manager Velisaratos has engaged a coach, who is working faithfully with the team. The little fellows in school have shown up so well that a 120-pound team has been started and they expect to enter the P. A. A. and win that cup.

The season now looks very encouraging. The squad is going right along winning the majority of their practice games, and there still remains several months before the league starts. All that is needed is the spirit and support from the school. If all of you do your part in that line, Lick will surely have a winning team in basketball.

Swimming

As usual, Lick entered a team in the Academic Athletic League swimming meet, held on the night of October 11, at the Y. M. C. A. swimming tank. On account of the difficulty of getting signed up, a full team could not be entered. We were, therefore, not represented in the 50 or 880-yard swims, and consequently the team was not able to do better than finish third—with a total of 4 points.

In the 100 yards, Captain Iddings swam hard but could not finish better than fourth. He surely will do better in the coming meet. In the 440, Fox was just beaten out of third place, but with a little more training he ought to finish better in the Bay Counties meet. The relay team, composed of Iddings, Smith, Bates, Hulling, Frank and Fox, placed third.

In the Bay Counties, to be held on November 22, Lick will have a full team and one or more men in every race. The relay team will be the same as in the A. A. L., except that Kidder will swim.

The team hopes to do better as the season progresses, for good material has been discovered in it, and with steady training it should place in the coming meets.

Track

At the present time the track prospects for Lick do not look very bright. Nevertheless, Lick did very well in the recent meet held by the San Francisco Sub-League of the Academic Athletic League. Nearly all the men entered from Lick in the meet took places and won points for their school.

There is some good material at school, and if these men would only train faithfully and grasp the opportunity that Jackson Park offers, Lick would have a fast track team in a short time. After spring, the season will start in earnest. Football will be over and the men of that team will have a chance to devote more of their time and efforts to track.

Captain Mangelsdorf vouches that if his team does not come out on top next year they will make it pretty warm for those who do. With the assistance of a coach, the team will try to demonstrate its worth.

The S. F. A. L. Meet

In the Sub-League meet, held on October 19, Lick finished third with a total of 35 points. The school was unable to place an unlimited relay team in the meet on account of two men being unable to appear.

The B. C. A. L. Meet

The Bay Counties track meet is due very soon and, of course, Lick expects to make a good showing. Manager Thorn complains of having a hard time getting men to come out and train for the meet, but after continued efforts he is succeeding in getting some fair material. The Bay Counties meet will be held indoors this year at the Idora Park auditorium.

Girls' Athletics

Girls' Basketball

The first interclass basketball game was played on October 14, between the Juniors and the Freshmen. The Freshmen lacked team work, and due to this they lost, the score being 25 to 16 against them.

On October 15 the Juniors played the Sophomores. This was a much harder game than the Junior-Freshman and the Juniors were again victorious.

On October 21, the Seniors played their first game with the Freshmen. The Seniors outplayed their opponents in team work. The score at the end of the first half was 13 to 3 in favor of '13. The second half the Freshmen played hard but were beaten—the game ending 36 to 7, with the Seniors winning.

On October 28, the Sophomores played the Freshmen. The game was slow and showed lack of team work on both sides. The score was 11 to 9, with the Sophomores as the victors.

On the following day, the Seniors played the Juniors. Although the Seniors went in with a crippled team they deserve much credit for the fight they showed. The score at the end of the first half was 9 to 3 in favor of '14. The second half was faster and the team work was excellent. The score was 15 to 10, with the Juniors winners. By winning this game the Juniors won the interclass.

The basketball team has received letters from Oakland High School and Commercial High School announcing that they are also going to adopt a team of nine in the hope of standardizing the game. Games with these two schools are planned after the holidays.

The following is the line-up of the interclass teams:

Seniors—Forwards, Carmen Bieber, Eleanor Hauerken and Claire Fenner; guards, Leona Goodman, Hilda Hadeler, Gertrude Allen; centers, Elysse Larsen, Mabel Keané; touch, Frances Martyn.

Juniors—Forwards, Louise Thomas, Hazel Bullerdeick, Agnes Oliver, guards, Edith Holuber, Anna Beuttler, Marciline Marey; centers, Avalyn Baer, Doris Robertson; touch, Isabel Lightbody; substitutes, Grace Muller, Mary Curtin.

Sophomores—Forwards—Edna Puckhaber, Margaret Brack, Ruth Beecher; guards, May Deering, Hattie Piske, Grace Logie; centers, Lillian Olney, Janet Oswald; touch Winifred Taylor; substitute, Gertrude McLaughlin.

Freshmen—Forwards—Matilda Felderman, Rose Klein, Leone Andrun; guards, June Alexander, Azalea Rivers, Naomi Abrahamson; centers, Emma Assilino, Frances Devere; touch, Anna Hadeler; substitutes, Florence Winters, Alma Meyer.

Volley and Captain Ball

Inasmuch as inclement weather has driven the girls in from basketball they are going to devote their spare energies to volley and captain ball. An interclass will be run off during the winter months in the shop hall, as it is sufficiently large to accommodate these games.

Swimming

Swimming seems to have somewhat fallen out of favor temporarily. Water in the plunge is not so much appreciated when there is such an abundance around Sixteenth and Utah streets. Nevertheless, people interested in the team are keeping up work and preparing to represent their respective classes with honor.



VIAL-ENT.

Ralph Heintz, a chemistry shark,
When mixing some stuff on a lark,
Dropped a small vial,
And after a while
They laid him away in the dark.

Nybye—Say, why did you take off your hat to that girl? You don't know her, do you?

Siebenhauer—N—er—but my brother does, and this is his hat.

MR. PLUMB CONTRIBUTED THIS.

The evening callers were chatting gaily with the Potts when a patter of little feet was heard from the head of the stairs. Mrs. Potts raised her head, warning the others to silence.

"Hush!" she said softly. "The children are going to deliver their 'good-night' message. It always gives me a feeling of reverence to hear them—they are so much nearer the Creator than we are, and they speak the love that is in their little hearts never so fully as when the dark has come. Listen!"

There was a moment of tense silence. Then—

"Mamma," came the message in a shrill whisper, "Willy found a bedbug!"

Miss Beeger—Taussig, what makes you so late?
Taussig—I had words with Miss Coffin.

Miss B.—What?

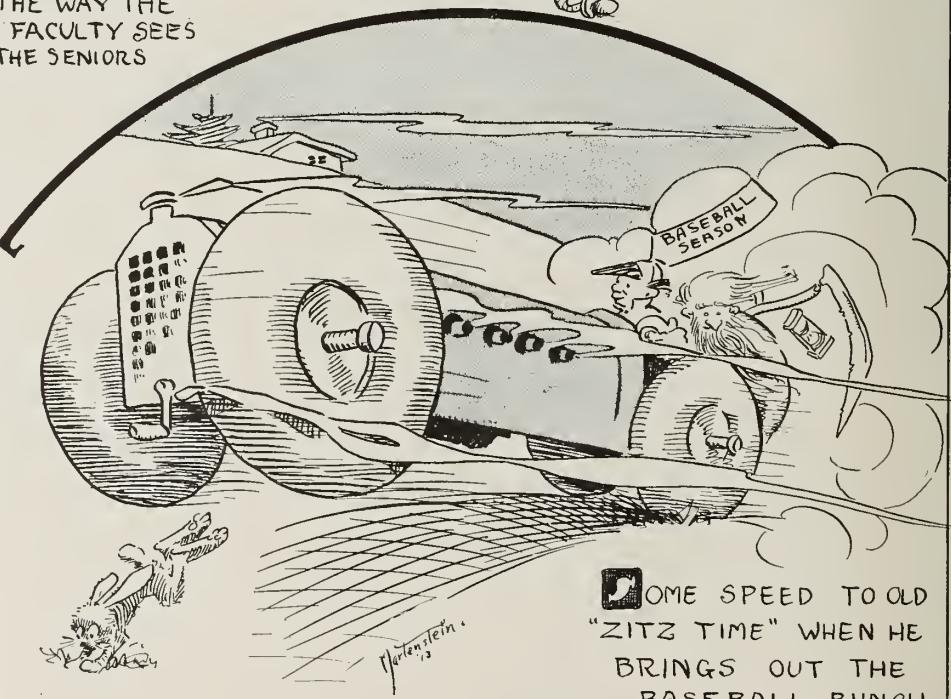
Taussig—But I couldn't spell them.

Two microbes sat on a pantry shelf,
And watched with expressions pained
The milkman's stunts, and both said at once,
"Our relations are getting strained."—Ex.

Silently, one by one, in the class books of the teachers,
Blossom the neat little zeros, the forget-me-nots of the teachers.—Ex.



THE WAY THE
FACULTY SEES
THE SENIORS



OME SPEED TO OLD
"ZITZ TIME" WHEN HE
BRINGS OUT THE
BASE BALL BUNCH.

JUST MASQUERADE LIKE THIS ITS
GREAT DOPE TO IMPROVE YOUR MARKS



THIS SIMP
WOULD LET HIS
HOME WORK GO
AND STAY UP READING A STYLE BOOK

IMAGINATIVE.

High—Gee! but I'd like to be the census!

Carmen—Why?

High—Because it embraces eighteen million women.

Boruck—I can't help thinking about myself.

Leona—It's human nature to worry over trifles, so don't bother.

FOOT WORK?

Doctor—I must forbid all brainwork.

Eggerton—But I can keep right on with algebra, can't I?

Doctor—O, certainly.

**—GIGGLES—**

She (in a friendly tone)—By the way, are you going to take supper anywhere tomorrow evening?

He (eagerly)—Why, no; not that I know of.

She (serenely)—My! won't you be hungry in the morning!

SAD BUT TRUE.

Buzzo—What's the height of your ambition?

High—Well, I won't say exactly, but she comes up to my shoulder!

Ogilvie—What would you call the children of the Czar?

Heintz—Czardines, I suppose.

"This is a dead beat," said the cop as he made the rounds of the cemetery.

THE TIGER.

Romaine—Miss Beeger, I'm indebted to you for all the German I know.
 Miss Beeger—Oh, don't mention such trifles.

"On what toe does a corn never come?"
 "Mistletoe."

He—What makes you so tired, dear? Weren't you at the Chess Club all afternoon?

She—Yes, I was at the Chess Club. But it was just one move after another.



Fox—Don't stand on that railroad track.
 Boruck—Why, any danger?

Fox—Any danger! If the cars see that mouth of yours they'll think it's the depot and run right in.

McAbee—Well, did you keep cool during the summer, Skinny?
 Coleman—Oh, no, I was camping near a mountain range.

Frank—Gee! my bones ache.
 Osborne—Yes, headaches are a nuisance, aren't they?

Dignity is a rare characteristic which is found only at "senior" class meetings.

Christmas Preparations

The wisdom of making early selections of holiday gifts is quite apparent—our displays are now most complete in

House Coats, Robes
Matched Sets of Tie, Socks
and Handkerchief
Parisian Ivory and Leather
Novelties
Silk Neckwear and Hosiery
Knitted Ties and Mufflers
Full Dress Vests and requisites
Plain, Fancy and Initial
Handkerchiefs
Gloves, Jewelry
Silk Pajamas
Canes and Umbrellas
Bags, Suit Cases and Trunks
Monogram Belts
Fancy Suspenders

Goods held for delivery at purchaser's pleasure

Merchandise orders in all departments

Hastings Clothing Co.

POST AND GRANT AVENUE

Special Attention Paid to School Orders

HARDWOODS

The Largest Stock WEST OF CHICAGO

WHITE BROTHERS

FIFTH AND BRANNAN STREETS, SAN FRANCISCO

We Supply Most of the Schools in the State

PHONE SUTTER 927

FESS SYSTEM CO.

ROTARY CRUDE OIL BURNERS
Patented

POWER—HEATING—COOKING

The Most Modern Method of Burning Crude Oil

218-222 NATOMA ST., near Third St.

SAN FRANCISCO

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC.

of THE TIGER, published quarterly at San Francisco, required by the Act of August 24, 1912. Name of editor, Samuel Ogilvie. Postoffice address, Lick High School, San Francisco. Business Managers, Ralph M. Heintz, Lick High School. Publishers, Students of California School of Mechanical Arts. Owners, Students of California School of Mechanical Arts. Known bondholders, mortgagees, and other security holders, holding 1 per cent. or more of total amount of bonds, mortgages, or other securities, None.

RALPH M. HEINTZ,
Business Manager.

Sworn to and subscribed before me this 3rd day of October, 1912.

KODAKS

FOUNTAIN PENS

Lasky's
Opticians

Largest Assortment of best Fountain Pens
L. E. Waterman Ideal—Conklin Self-Filling—Parker Lucky Curve
And all standard pens.

Phone Douglas 1701
814-816 MARKET STREET

17 & 19 ELLIS STREET
SAN FRANCISCO, CAL.

E.F. RUSS PRES.
A.H. ANTZ SECTY.

SIERRA CUTS

USE
Sierra Cuts
*for all
Advertising purposes
they attract attention
which means sales
for you.*

*If you demand
Quality You are
the Customer we
want — Have our
Representative call*

**HALFTONES-ZINCS
COLOR PLATES
AND DESIGNS OF
ALL CHARACTERS**

SIERRA ART & ENG. CO.
SIERRA BUILDING
FRONT & COMMERCIAL ST.
PHONE DOUGLAS 4780
SAN FRANCISCO

NEW

“That’s it”

The New

CALL

“The best ever”

Hills Bros.



**TEA
and
COFFEE**

Hills Bros.



**TEA
and
COFFEE**

Hills Bros.



Hills Bros.
**TEA
and
COFFEE**

ATHLETIC GOODS

SPORTING GOODS

SAN FRANCISCO HARDWARE CO.

3043-49 SIXTEENTH STREET
near Valencia

BUILDERS' HARDWARE

GUNS and AMMUNITION

The Bulletin

Circulation Over 100,000 Daily

SAN FRANCISCO'S HOME PAPER

DELIVERED TO YOUR ADDRESS
30c A MONTH

SUBSCRIBE NOW

Phone Kearny 340

Day School
9 to 4

Evening School
Monday, Wednesday, Friday
7 to 9

Office Hours Saturday,
9 to 12—1 to 2
Sunday 10 to 12

Gregg School *of* *Shorthand*

508-509 GRANT BUILDING, Market at Seventh

Phone Market 9025

We absolutely guarantee to teach you shorthand and touch typing in six months if you give us the best you have in you.

All our graduates have been placed with reliable firms and are earning from \$45.00 to \$125.00 a month.

Individual instruction is our motto.

OUR COURSE INCLUDES:

Shorthand,

Touch Typing,

Bookkeeping,

English,

Business Correspondence,
and Spelling

Call and we will be glad to tell you what we
can do for you.



*James N. Sorensen
Sorensen Co.*

BIG STOCK OF
CHRISTMAS GIFTS
SELECT THEM NOW

Sorensen Co.

**JEWELERS, WATCHMAKERS
and OPTICIANS**

715 MARKET STREET, Next to Call Building

Branch: 2593 Mission Street, Near 22d

Send Us Your Address for Our 1913 Calendar - - - FREE

**TEAM OUTFITS
FROM HEADQUARTERS**



Secure our prices on team outfits. We have better facilities for handling this work and can quote lower prices

— FOR —

BASKETBALL, BASEBALL, FOOTBALL, SWIMMING
AND TRACK TEAMS.

Gantner & Mattern Co.
KNITTERS

XMAS GIFTS

A carefully selected stock containing the latest and best in holiday goods now on sale at our stores.

BOOKS OF ALL KINDS—SUIT CASES AND TRAVELING BAGS
LEATHER NOVELTIES—XMAS AND NEW YEAR'S CARDS

H. S. CROCKER CO.

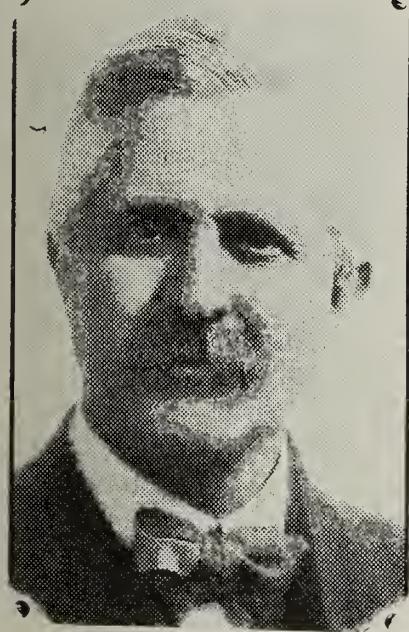
AND

CUNNINGHAM, CURTISS & WELCH

565-571 MARKET STREET
SAN FRANCISCO

252 SOUTH SPRING STREET
LOS ANGELES

THIS IS A TALK TO PARENTS—



day "doing splendidly" because of the start that I gave them.

¶ I desire to serve you—you and I are interested in the future of that boy of yours.

¶ Let me give him our thorough business training and I know that in years to come you'll be proud of him.

¶ San Francisco is bristling with opportunities in the business world for rightly-trained, ambitious young men and your boy should take advantage of them.

¶ No boy that I ever trained has ever "gone wrong." Thousands are to-

¶ Competent teachers and the best systems of shorthand and bookkeeping.

¶ Come in, start your boy on the road to success at the

SAN FRANCISCO BUSINESS COLLEGE

908 MARKET STREET, Opp. Fifth



For a

CLEVER
LASSY
OLLEGE
UT

— GO TO —

J. BAKER

HIGH GRADE GENTLEMEN'S
TAILOR

Fit and Workmanship Guaranteed

I also make up first-class ladies' suits,
\$35.00 and up.

Perfect fit guaranteed

530 Castro Street

Near 18th



Sartorius Company, Inc.
• Ornamental Iron & Bronze •



• ELEVATOR ENCLOSURES & CABS • METAL STORE FRONTS •
• STAIRS • RAILINGS • BANK ENCLOSURES & RAILINGS •
• BRONZE TABLETS & NAME PLATES • ANDIRONS • ETC •
• TELE-MARKET 1329 • SAN FRANCISCO • WORKS 15TH & UTAH STS

STUDENTS' LUNCHES A SPECIALTY

PATRONIZE A NATIVE DAUGHTER

MRS. H. TEIGELE

ICE CREAM, CANDIES, PASTRIES, CAKES and PIES
COFFEE, SANDWICHES, and HOT BOW-WOWS

"A FAIR DEAL TO ALL"

DRESS SUITS

as they should be
made.

DID YOU EVER NOTICE

that some men always look so neat,
and that something about their
clothes that gives them distinction.

Nine out of every ten of them have
their clothes made by

STIEGELER BROS.

TAILORS

711 MARKET STREET

SPECIAL

During this month
all overcoats lined
with silk without
extra charge.

**Suits and
Overcoats
From \$30 up.**

"Wear a Benjamin"

Ready to Wear

Business Suits,	Overcoats
Norfolk Suits	Auto Coats
Tuxedo Suits	Rain Coats
Full Dress Suits	Canes and Umbrellas



OAKLAND

Phones: Market 5776

Home M 2766

DEL MONTE CREAMERY

M. DETTLING, Proprietor

PUREST MILK AND CREAM SUPPLIED

386 UTAH STREET, near 17th

SAN FRANCISCO

THE LEADING AND LARGEST SPORTING GOODS
HOUSE ON THE PACIFIC COAST



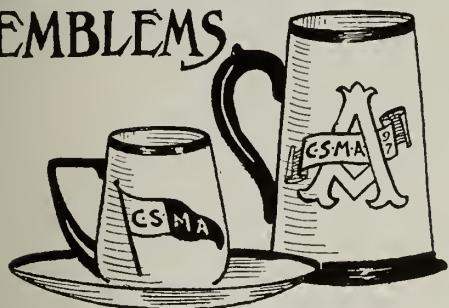
Eleven Exclusive Sales Departments where Every Article is Guaranteed to be the Best that can be offered for the Fair Price that is asked for it. Let us prove it.

PATRONIZE OUR ADVERTISERS. PLEASE MENTION "THE TIGER."

SAMISH'S

Hand Painted China

Monogram Dinner Ware

**C·S·M·A·
EMBLEMS**

on steins, cups and saucers, trays,
hat pins and holders, shaving mugs,
etc., Christmas gifts.

220 Stockton Street

ENGRAVING

ADDRESS DIES,
CALLING CARDS,
MONOGRAMS,
CRESTS,
WEDDINGS,

APPROPRIATE
CHRISTMAS GIFTS

ROBERTSON'S

222 Stockton Street

Union Square

San Francisco

... THE SCHOOL OF QUALITY ...

Day School

DUDLEY
METROPOLITAN
Business College
THE MISSION BANK BLDG. AT 16TH ST. NEAR VALENCIA

Night School

To do a man's part in present-day business demands business training. No other kind of training will take the place of business training. By good luck you might get a good position, but by no amount of good luck can you hold it. The right training will enable you to hold it. You can not blunder into success. The best business training is the only thing upon which to depend.

DUDLEY BUSINESS COLLEGE

is the best place to get the best business training. There is a reason.

NOW IS THE BEST TIME

The hard times of the past three years are giving way to a more comfortable condition, and prosperous times are just ahead.

Are you prepared to get the most out of these improved conditions? Get your business education now and be ready to ride into success on the great wave of prosperity, which we are soon to experience. Call, write or 'phone.



Telephone Market 4291

A. W. DUDLEY,
President.



Kearny at Sutter Street

MEN'S SUITS AND OVERCOATS

Forty-three Years' Experience Manufacturing
Clothing for San Francisco Men. All Cloth-
ing on Sale Made in Our Own Manufactory

WRIGHT & DITSON'S

BASEBALL, TENNIS, TRACK and GYMNASIUM GOODS
ARE THE BEST

Headquarters for Baseball Uniforms—General Athletic Goods

WRIGHT & DITSON

359 MARKET STREET

SAN FRANCISCO, CAL.

SON & FARLESS

SPORTING GOODS AS XMAS GIFTS

CUTLERY
FISHING TACKLE
DOG COLLARS
AMMUNITION
BICYCLES
BASEBALL
FOOTBALL
TENNIS and other
ATHLETIC GOODS



1726 FILLMORE ST.

Bet. Post and Sutter

Telephone West 5663

San Francisco

THE
JAMES H. BARRY
COMPANY
THE STAR PRESS

PRINTERS and
PUBLISHERS

1122-1124 MISSION
SAN FRANCISCO

PHONES PARK 6380 and 6381—J 2380
Private Exchange Connecting All Departments

Western Pacific

2001-2007 SIXTEENTH STREET



¶ We carry only the best of everything.

¶ NATIONAL ICE CREAM.

¶ RAMONA SWEETS.

¶ WM. ESSER CANDIES.

¶ WHITE LABOR CONES.

GROCERIES, FRUITS AND
VEGETABLES

Fruit Market

Phone Market 6796

¶ SCHOOL BOOKS AND SCHOOL SUPPLIES.

¶ EVERYTHING FOR THE DRAUGHTSMAN.

¶ KEUFEL & ESSER AND POST'S DRAWING INSTRUMENTS.

¶ A FULL LINE OF DRAWING PAPERS.

—
¶ "LUNCHES THAT MELT IN YOUR MOUTH."

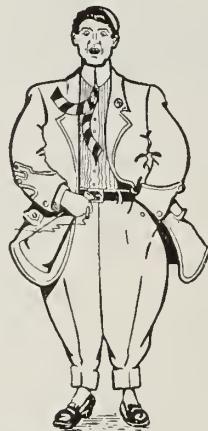
—
¶ SANDWICHES:

Ham, Cheese and Fidos.

"Just follow the crowd."

DELIVERED TO ANY PART
OF THE CITY

McDONALD & COLLETT
Made to Order Clothes



Early Fall Suitings Now Ready
 Blue and Black Broadwale
 Cheviots and Serges—Popular Priced
 Made in the New English Style, and the
 POPULAR BOX BACK COAT

We feature the Making of Clothes
 for Young Men

McDONALD & COLLETT

741 Market St.

SAN FRANCISCO

2184-86 Mission St.

112 S. Spring St., Los Angeles

717 K. St., Sacramento

EAGLESON & CO.

Importers and Manufacturers
 MEN'S AND YOUNG MEN'S FURNISHING
 GOODS AND SHIRTS

1118 MARKET STREET, Opposite 7th

SAN FRANCISCO

Phone Market 5417

HEADQUARTERS FOR LICK STUDENTS
 AND GRADUATES

The place to buy your Christmas Goods.

*Kodaks & Photo Supplies—Pictures, Calendars & Post Cards.
 Artistic Picture Framing.*

TREISBACK AND PRINCE

Successors to P. W. HURNDALL

1025 FILLMORE STREET

A. H. MEYN, Lick '11, Manager of Kodak Dept.

Near McAllister



MAJESTIC ACADEMY OF DANCING

HARRY M. HAMMOND, Instructor
 MAJESTIC HALL - Fillmore and Geary Streets
 Classes Mondays. Social Thursdays.

Private Lessons by Appointment.

THE BEST EQUIPPED, BEST VENTILATED AND THE MOST CENTRALLY LOCATED
 HALL IN THE CITY. :: :: :: :: HALL FOR RENT

¶ In selecting a school at which to establish an independent earning capacity, remember that

GALLAGHER-MARSH

is now recognized by our judges, lawyers and successful business men who have had experience with stenographers and all kinds of office help, as California's Highest Class Business College.

GALLAGHER-MARSH BUSINESS COLLEGE

1256 MARKET STREET,

is recommended by the expert shorthand reporters of the State of California, and you can not afford to ignore their advice if you wish gratifying results.

¶ Send for booklet and read what the experts say about this college, and then you will understand why it is so popular.

VAN ARSDALE-HARRIS LUMBER CO.

FIFTH and BRANNAN STREETS

Phone Kearny 2076

**Specially Selected Lumber for
Particular Workmen**

**Boys and girls, when your hands
are dirty—**

U-NEED HAND PASTE

IT IS THE CALIFORNIA MANUFACTURER AND NOT THE
FELLOW THREE THOUSAND MILES AWAY WHO WILL
OFFER YOU EMPLOYMENT.

SEE CHIEF DIXON

IRVINE & JACHENS

Manufacturers of
Gold and Silver
SCHOOL
and CLUB
EMBLEMS
—
Badges, Medals
and Fobs

1027 Market Street, above 6th
San Francisco, Cal.

DON'T
FORGET
OUR
ADVERTISERS

JAMES A.**MORGAN***"The Glass Pin Man"*

Made the finest
pins LICK ever had.



WE
PATRONIZE
MORGAN

611-615 Phelan Bldg., San Francisco
Phone Kearny 2622



MORGAN'S
PINS ALWAYS
BEST

DO YOU WANT TO KNOW ANYTHING ABOUT **MACHINERY**

If so, write us. Data cheerfully given.

MACHINE TOOLS **BOILERS AND ENGINES** **HOISTS AND PUMPS** **MINING MACHINERY** **SAW MILL AND WOOD-WORKING MACHINERY**

LATHES
PLANERS
DRILL PRESSES
BOLT CUTTERS
PIPE MACHINES
MILLING
MACHINES
PUNCHES
SHEARS
BENDING ROLLS
PNEUMATIC
TOOLS
DRILL
GRINDERS

“DODGE”

Transmission Machinery and Supplies

Harron, Rickard & McCone

139 Townsend, near Second

SAN FRANCISCO

LOS ANGELES

**SAW MILL AND
WOOD-WORKING
MACHINERY**

MOLDERS
PLANERS
FLOORERS
SHAPERS
BAND SAWS
BORING
MACHINES
SWING SAWS
RESAWS
RIP SAWS
EDGERS
MORTISERS
TENONERS

THE COMPRESSED AIR MACHINERY CO.

GENERAL MACHINERY AND SUPPLIES

We are the agents for the famous "STAR" Lathes. All sizes carried in stock. :: ::

**39 Stevenson Street
San Francisco**

MEUSSDORFFER HAT ORDERS

*Have for years pleased those
receiving same for Xmas.*

Men's Velour

Hats,

\$5.00, \$7.00

Ladies' Velour

Hats

\$7.50, \$10.00



*When purchasing for the Holidays
remember your folks through us.*

J. F. KINMAN

Kodaks

OUR STORE POLICY:

Has always been to carry the standard and desirable goods in every line.

That is why we chose "Kodaks" for our photographic department. We felt sure from careful investigation that these were the goods that should be offered our customers. From our years of experience we now know that we were right.

2207 FILLMORE STREET

Phone West 6347

OPEN EVENINGS LATEST STYLES
Telephone Kearny 2280

L. SKOLL
DRESS SUITS RENTED
For All Occasions



305 KEARNY STREET
Corner Bush



Men's and Women's High-Grade Footwear
AT FACTORY PRICES
DIRECT FROM FACTORY TO YOU
LOW RENT reason of our LOW PRICES
New and Exclusive Fall Novelties in
Women's Footwear. All the New Eng-
lish and Flat Custom Lasts in Men's
High and Low Shoes.

SHORT VAMPS—STUBBY TOES
\$2.50—\$3.00

DOOSE & LASKY

Second Floor—Flood Building
Cor. Market and Powell Sts.

A. G. Spalding & Bros.

Are the Largest Manufacturers in
the World of

Official Equipment

FOR ALL ATHLETIC SPORTS
AND PASTIMES



The
SPALDING
Trade-Mark
is known throughout
the world as a
Guarantee
of Quality

IF YOU are interested in Athletic
Sport you should have a copy of the
Spalding Catalogue. It's a complete
encyclopedia of What's New in Sport
and is sent free on request.

A. G. Spalding & Bros.

The Overall Laundry and Supply Co.

JOS. T. CAVANAUGH, Proprietor.

Calls Made Every Friday at 4:30 p. m. and Deliveries
Made Monday at 8:30 a. m.

BUTTONS SEWED ON AND MENDING DONE

Overalls, $12\frac{1}{2}$ cts. Pattern Makers' Suits, 15 cts. Jumpers, $12\frac{1}{2}$ cts.
Overalls with Bib, $12\frac{1}{2}$ cents

1140 HARRISON STREET, Near Eighth

San Francisco

Telephone Market 143

COLLEGE FOOTWEAR STYLES

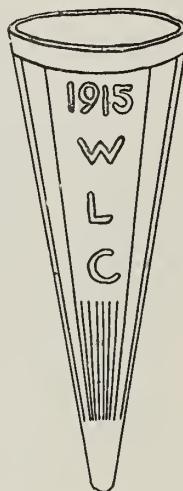
The newest creations in shoes are always here first.

We make a specialty of College styles for the young lady or man. Large selections at \$3.50 and \$4.00.

SOMMER & KAUFMANN

836-842 Market Street
119-125 Grant Avenue

White Labor Cones



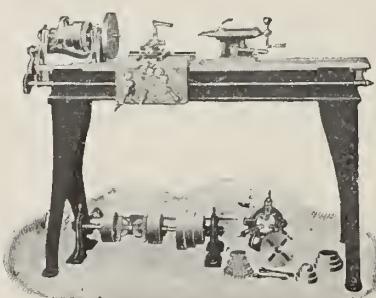
None Genuine
Without
W. L. C.
On Each Cone

Manufactured by

H. OELLERICH
50 SHOTWELL STREET

MACHINE SHOP TOOLS and SUPPLIES :: ::

BRASS, COPPER,
STEEL, ETC.



C. W. MARWEDEL

76-80 First Street San Francisco

JOHN A. ROEBLING'S SONS CO.

OF CALIFORNIA

Manufacturers of
Iron, Steel and Copper Wire and
Wire Rope

Bare & Insulated Electric Wires & Cables

Telegraph and Telephone Wire
Insulators, Brackets and Pins

Wire Cloth and Netting, Wire Nails,
Barb Wire

"Weld-Clad" Copper-Clad Steel Wire
Enamelled and Galvanized Iron Conduit

624 to 646 FOLSOM STREET
SAN FRANCISCO

Cor. Market & Alameda Sts, Los Angeles
89 Fifth Street.....Portland, Ore.
900 First Ave. South.....Seattle, Wash.
117 to 121 Liberty St.....New York
165 West Lake St.....Chicago
701-707 St. Clair Ave. N. E.....Cleveland
321 Empire Building...Atlanta, Ga.
627 Market Street.....Philadelphia, Pa.

WORTHY OF SPECIAL NOTICE

ARE OUR

\$20.00

SUITS or OVERCOATS

MADE TO ORDER

You'll Pay \$30-\$35.00 Elsewhere

TRY ONE

NEUHAUS & CO., Inc.
TAILORS

506 MARKET STREET

SAN FRANCISCO

Home Phone C 3726

Kearny 5938



Puckett's College of Dancing ASSEMBLY HALL, 1268 Sutter Street

*THE CITY'S MOST EXCLUSIVE BALL-
ROOM. USED FOR REFINED DANCING.*

Classes Mondays.
Classes and Social, Wednesdays.
Assemblies Fridays.

Private Lessons

HALL FOR RENT

Phone Franklin 118

THE VALUE OF A
SUIT OR OVERCOAT
DEPENDS ON ITS SERVICE
NOT ON ITS PRICE

OUR

\$15.00

SUITS AND OVERCOATS
are BUILT for Service

Try One and Be Convinced

De Bretteville

OUTFITTERS FOR MEN WHO CARE

132 KEARNY STREET
Clothing Exclusively

2684 MISSION STREET
Clothing — Furnishing Goods — Hats
San Francisco, Cal.



Doubt doesn't enter the head of the fellow who purchases
JUVENILE CLOTHES

They are perfection, that's all anybody could ask for—in
newest models

STRAIGHT LINE COAT
SEMI-ENGLISH and
ENGLISH MODELS

\$15 to \$30

THE JUVENILE
STYLE ORIGINATORS FOR YOUNG GENTLEMEN
130 GRANT AVENUE

The Only Overcoat Specialists for Young Men.